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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,269	10/12/2001	Oscar Salonaho	930.340USW1	2266

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EXAMINER

MEHRPOUR, NAGHMEH

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 03/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/977,269

Applicant(s)

SALONAH O ET AL.

Examiner

Naghmeh Mehrpour

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 31 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-13, 15-42, are rejected under 35 U.S.C. 102(e) as being anticipated by Butovitsch III et al. (Patent Number 6,708,041).

Regarding claim 1, Butovitsch teaches a method of controlling the power with which a first station transmits to a second station, comprising the step of:

transmitting from the second station to the first station a power control command having a given value (col 7 lines 10-40);

receiving said power control command at said first station (col 7 lines 10-40);

determining from said received power control command a parameter representative of the quality with which the power control command is received at the first station (col 7 lines 10-40), and

controlling the power at which the first station transmits signals based on the determination step (col 7 lines 10-40).

Regarding claim 2, Butovitsch teaches a method wherein in the determining step, the received value of said received power control command is determined as said parameter (col 7 lines 21-40).

Regarding claim 3, Butovitsch teaches a method as claimed in claim 2, further comprising the steps of comparing said determined received value with a threshold value (col 7 lines 15-40, col 11 lines 34-44);

determining the given value which was transmitted based on the comparing step (col 11 lines 21-40);

and

in the controlling step controlling the power which the first station transmits signals based on the determined transmitted value (col 8 lines 10-26)

Regarding claim 4, Butovitsch teaches a method wherein the first station is arranged to transmit signals to plurality of second stations, each of the second stations transmitting a power control commands to the first station (col 7 lines 5-40).

Regarding claim 5, Butovitsch teaches a method wherein the method further comprises the step of selecting one of the determined transmitted values in accordance with a predetermined criteria (col 8 lines 1-10).

Regarding claim 6, Butovitsch teaches a method wherein the transmitted power control command comprises one of a first value indicating that the power should be increased and a second value indicating the power should be decreased (col 7 lines 10-40) .

Regarding claim 7, Butovitsch teaches a method wherein the predetermined criteria is to select value if at least one of the determined transmitted values is the second value (col 8 lines 10-45).

Regarding claim 8, Butovitsch teaches a method wherein the predetermined criteria is to select the first value if all the determined transmitted values are the first value (col 8 lines 10-47).

Regarding claim 9, Butovitsch teaches a method wherein the threshold value is between the possible received values representative of the transmitted first and second values (col 11 lines 33-44).

Regarding claim 10, Butovitsch teaches a method wherein the threshold value is such that one of transmitted power command value is favored over the other (col 7 lines 10-40).

Regarding claim 11, Butovitsch teaches a method wherein the first value is favored over the second value (col 7 lines 10-40).

Regarding claim 12, Butovitsch teaches a method wherein the first value is +1 and the second value is -1 (col 2 lines 65-67, col 3 lines 1-15).

Regarding claim 13, Butovitsch teaches a method wherein the threshold value is in the range -.6 to 0 (col 7 lines 21-40).

Regarding claim 15, Butovitsch teaches a method as claimed in any preceding claim, further comprising the steps of :

receiving at the second station a signal from said first station, determining the strength of the received signal from the first station and determining from the strength

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of the received signal the power control command transmitted to the first station (col 6 lines 15-45).

Regarding claim 16, Butovitsch teaches a method as claimed in claim 5 or any claim appended thereto, said method comprising the steps of:

combining the received values of said received power control commands (col 7 lines 10-21),

comparing the combined value and the selected value and on the basis of the comparison selecting one of said combined value and the selected value and controlling the power which the first station transmits in accordance therewith (col 7 lines 10-40).

Regarding claim 17, Butovitsch teaches a method as claimed in claim 16 when appended to claim 6, wherein the one of the combined value and the selected value which is closer to representing a predetermined one of said first and second transmitted values is selected (col 7 lines 10-40).

Regarding claim 18, Butovitsch teaches a method as claimed in claim 17, wherein said predetermined one of said values is the second value (col 7 lines 10-40 col 8 lines 27-47).

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Regarding claim 19, Butovitsch teaches a method as claimed in any one of the preceding claims when appended to claim 2, comprising the steps of:

outputting a value based on a currently received power control command value and at least one previously received power control value (col 7 lines 10-40); and

comparing said output value and the selected value and on the basis of the comparison selecting one of said output value and the selected value and controlling the power which the first station transmits in accordance therewith (col 7 lines 10-40).

Regarding claim 20, Butovitsch teaches a method as claimed in claim 19, comprising the steps of: summing the currently received power control value with the at least one previously received power control command value 9col 7lines 10-40, col 11 lines 33-43);

comparing the summed value with a predetermined threshold (col 11 lines 3-43);

outputting the determined received value or if a threshold of the summed value is crossed outputting a default value (col 11 lines 33-43).

Regarding claim 21, Butovitsch teaches a method as claimed in claim 20, wherein the first station is arranged to transmit signals to a plurality or second stations, each of which second stations is arranged to transmit power control commands to said first station, said method further comprising the steps of:

determining the values of each of said received power control values and selecting one of said determined received values, in accordance with a predetermined

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criteria, no be summed with the an least one previously received power control values
col 7 lines 10-40, col 11 lines 33-43).

Regarding claim 22, Butovitsch teaches a method as claimed in any preceding claim,
wherein said second station is a base station (col 7 lines 10-40).

Regarding claim 23, Butovitsch teaches a method wherein said first station is a mobile
station (col 7 lines 10-40).

Regarding claim 24, Butovitsch teaches a method of controlling the power with which a
first station transmits signals to a plurality of second stations, comprising the steps of:
transmitting from each of the second stations to the first station a power control
command having a given value (col 7 lines 10-21);

receiving said power control commands at said first station (col 7 lines 10-40);

determining the received values of said received power control commands;

combining the received values of said received power control commands; and

controlling the power with which first station transmits to the second station

based on said combined value (col 7 lines 10-40).

Regarding claim 25, Butovitsch teaches a method as claimed in claim 24, wherein said
transmitted power control command comprises a first value indicating that the power
should be increased and a second value indicating that the power should be

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decreased, and if the combined value exceeds a given threshold, the power with which the first station transmits to second station is one of increased or decreased and if the combined value is below the given threshold, the power with which the first station transmits to the second station is the other of increased or decreased (col 7 lines 10-40).

Regarding claim 26, Butovitsch teaches a method of controlling the power with which a first station transmits signals to a second station, comprising the steps of:

- transmitting from the second station to the first station a plurality of power control commands (col 7 lines 10-40);

- receiving said power control commands at said first station (col 7 lines 10-40);

- determining the value of said received power control values, controlling the power with which the first station transmits to the second station based on a currently received power control command and at least one previously received power control command (col 7 lines 10-40).

Regarding claim 27, Butovitsch teaches a method as claimed in claim 26, comprising the steps of summing the determined value of the currently received power control command with a previously determined value of at least one previously received power control command (col 7 lines 10-40);

- comparing the summed values with a predetermined threshold (col 11 lines 33-43);

controlling the power with which the first station transmits to the second station depending on whether or not the threshold is crossed and the determined value of the currently received power control value (col 11 lines 33-43).

Regarding claim 28, Butovitsch teaches a method wherein the first station is arranged to transmit signals to a plurality of second stations, each of which second stations is arranged to transmit power control commands to said first station, said method further comprising the steps of determining the values of each of said received power control values and selecting one of said determined values in accordance with a predetermined criteria as the current received value (col 11 lines 33-43).

Regarding claim 29, Butovitsch teaches a method as claimed in claim 28, wherein said transmitted power control command comprises either a first value indicating that the power should be increased or a second value indicating that the power should be decreased, and the predetermined criteria is to select the received value closer to the second value (col 7 lines 10-67, col 8 lines 1-10).

Regarding claim 30, Butovitsch teaches a method wherein if the summed value crosses the threshold and the determined value of the received power is determined to represent a power increase, the power with which the first station transmits to second station is decreased (col 7 lines 10-40).

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Regarding claim 31, Butovitsch teaches a method wherein if the summed value crosses the threshold and the determined value of the received power is determined to be represent a power increase, the power with which the first station transmits to second station is decreased and the summed value becomes reset value (col 7 lines 10-40).

Regarding claim 32, Butovitsch teaches a method for controlling the power which a first station transmits signals to a second station comprising the steps of:

- transmitting from the second station to the first station a power control command (col 7 lines 10-40);

- receiving said tower control command at the first station (col 7 lines 10-40);

- determining, using a plurality of different methods, power control information from said received power control command (col 7 lines 10-40); and

- controlling the power with which the first station transmits to the second station based on the determination step (col 7 lines 10-67).

Regarding claim 33, Butovitsch teaches a method as claimed in claim 32, wherein the power control information obtained from one of said plurality of different methods is used to control the power with which the first station transmits to the second station (col 7 lines 10-40, col 8 lines 32-62).

Regarding claim 34, Butovitsch teaches a method wherein one of said plurality of different methods comprises the steps of determining from the received power control command a parameter representative of the quality with which the power control command is received at the first station, said parameter defining said power control information (col 7 lines 40-67).

Regarding claim 35, Butovitsch teaches a method wherein one of said plurality of different methods comprises the steps of determining the received values of a plurality of power control commands received at said first station from a plurality of second stations, combining the received values of the received power control commands to define said power control information (col 7 lines 10-67).

Regarding claim 36, Butovitsch teaches a method wherein one of said plurality of different methods comprises the steps of determining the received values of a plurality of power control commands received at said first station from said second station, providing power control information based the currently received power control command and at least one previously received power control command (col 7 lines 10-67).

Regarding claim 37, Butovitsch teaches a first station which in use transmits signals to a second station, said first station comprising:

means for receiving a power control command transmitted from said second station to said first station, said power control command being transmitted with a given value (col 7 lines 10-67);

determining means for determining from said received power control command a parameter representative of the quality with which the power control command is received at the first station (col 8 lines 10-63); and

control means for controlling the power which the first station transmits signals based on the determination carried out by said determining means (col 8 lines 10-63).

Regarding claim 38, Butovitsch teaches a first station which in use transmits signals to a plurality of second stations, said first station comprising:

means for receiving power control commands transmitted from said second stations to said first station, said power control commands being transmitted with a given values (col 7 lines 10-40);

means for determining the received values of said received power control commands (col 7 lines 10-40);

means for combining the received values of said received power control commands (col 7 lines 10-40); and

means for controlling the power with which first station transmits to the second station based on said combined value (col 7 lines 10-67).

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Regarding claim 39, Butovitsch teaches a first station which in use transmits signals to a second station, said first station comprising:

means for receiving power control commands transmitted from said second station to said first station; (col 7 lines 10-40)

means for determining the values of said received power control values 9col 7 lines 10-40):

means for controlling the power with which the first station transmits to the second station based on a currently received power control command and at least one previously received power control command (col 7 lines 10-67).

Regarding claim 40, Butovitsch teaches a first station which is use transmits signals to one or more second stations, the first station comprising:

means for receiving power control commands fro the one or more second stations (col 7 lines 10-40); and

a device according to claim 37.

Regarding claim 41, Butovitsch teaches a method of controlling the power with which a first station transmits signals to a second station comprising the steps of:

receiving from the second station at the first station a power control command (col 7 lines 10-40);

determining the received value of the received power control command, the received value representing the quality with the which the power control command is received at the first station (col 7 lines 10-67); and

deciding whether to increase or decrease the power at which the first station transmits signals on the basis of the result of the determination step (col 7 lines 10-67).

Regarding claim 42, Butovitsch teaches a device for a first station which in user transmits signals to a second station, the device comprising:

a controller for determining a received value of a power control command received from the second station, the received value representing the quality with which the power control command is received at the first station (col 7 lines 10-67); and

deciding whether to increase or decrease the power at which the first station transmits signals on the basis of the result of the determination (col 7 lines 10-67).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 14, is rejected under 35 U.S.C. 103(a) as being unpatentable over Butovitsch et al. (US patent 6,808,041).

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Regarding claim 14, Butovitsch fails to teach a method as claimed in claim 13, wherein the threshold value is in the range -0.025 and -0.30. However, Examiner takes official notice that a method of claim 13 wherein the threshold value is in the range -0.025 and -0.30 is well known in the art. Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combine the above teaching with Butovitsch, in order to enable to control the performance of the system more precisely.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lomp (US Publication 2002/0122460) disclose spread spectrum adaptive power control

Lee et al. (US Patent 6,690,944 B1) disclose power control of a multi-subchannel mobile station in a mobile communication system

Furukawa et al. (US Patent 6,539,226) disclose base station transmission power control system mobile station and base station

5. **Any responses to this action should be mailed to:**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Naghmeh Mehrpour whose telephone number is 571-272-7913. The examiner can normally be reached on 8:00- 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold be reached (571) 272-7905.

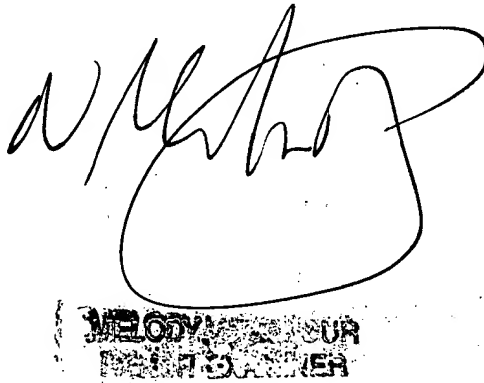
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The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NM

March 5, 2006

A handwritten signature in black ink, appearing to read 'A. H. Ho', is written over a rectangular stamp. The stamp contains the text 'EBC' and '11/13/05' in a bold, sans-serif font.